# IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION

VIDEOSHARE, LLC, CIVIL A	CTION NO.	6:19-CV-663
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Plaintiff,

v. JURY TRIAL DEMANDED

GOOGLE LLC and YOUTUBE, LLC,

Defendants.

# PLAINTIFF'S PETITION FOR DECLARATORY JUDGMENT FOR VALIDITY AND ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT AND JURY DEMAND

Plaintiff VideoShare, LLC ("VideoShare") files this Petition for Declaratory Judgment for Validity and Original Complaint for Patent Infringement and Jury Demand against Defendants Google LLC and YouTube, LLC (collectively "Defendants"). Plaintiff seeks a declaration that U.S. Patent No. 10,362,341 (the "'341 Patent") is valid and alleges infringement of the '341 Patent as follows:

### I. PARTIES

- 1. VideoShare is a Delaware limited liability company with a principal place of business at 16 Essex Road, Chestnut Hill, Massachusetts 02467.
- 2. Google LLC ("Google") is a Delaware corporation with a physical address at 500 West 2<sup>nd</sup> Street, Austin, Texas 78701. Google may be served with process through its registered agent, the Corporation Service Company, at 211 East. 7th Street, Suite 620, Austin, Texas 78701. Google is registered to do business in the State of Texas and has been since at least November 17, 2006.
- 3. YouTube, LLC ("YouTube") is wholly owned by Google and is a Delaware limited liability company with a physical address at 3600 Presidential Boulevard, Austin, Texas 78719.

YouTube may be served with process through its registered agent, the Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. YouTube actively transacts business in this District and within the state of Texas at least through a server located at 3600 Presidential Boulevard, Austin, Texas 78719.

### II. JURISDICTION FOR DECLARATORY JUDGMENT ACTION

- 4. This is an action for a declaration that the claims of the '341 Patent are valid over which this court has subject matter jurisdiction pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202.
- 5. This Court has general and specific personal jurisdiction over Defendants because Defendants are present in and transact and conduct business in and with the residents of this District and the State of Texas through a regional hub and at least one server in Austin, Texas.
- 6. VideoShare's causes of action arise, at least in part, from Defendants' contacts with and activities in this District and the State of Texas.
- 7. VideoShare, as of November 2, 2019, has explicitly notified Defendants of the existence and validity of the '341 Patent. As of the time of this filing, Defendants have not responded to VideoShare's communication.
- 8. An actual, substantial, and continuing justiciable controversy exists between VideoShare and Defendants with respect to which VideoShare requires a declaration of its rights by this Court. Specifically, the controversy relates to the validity and infringement of the '341 Patent.
- 9. Defendants have committed acts of infringement by practicing the '341 Patent within this District and the State of Texas by making, using, selling, and/or offering for sale infringing products and/or services, directly and/or indirectly, without a license or permission from

VideoShare. Defendants' infringing products and services include their products and services for receiving, converting, and sharing streaming video, including those distributed through YouTube.

### III. JURISDICTION FOR PATENT INFRINGEMENT

- 10. This action arises under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*, including 35 U.S.C. §§ 271, 281, 283, 284, and 285. This is an infringement lawsuit over which this Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).
- 11. This Court has general and specific personal jurisdiction over Defendants because Defendants are present in and transact and conduct business in and with the residents of this District and the State of Texas through a regional hub and at least one server in Austin, Texas.
- 12. VideoShare's causes of action arise, at least in part, from Defendants' contacts with and activities in this District and the State of Texas. Defendants have committed acts of infringement by practicing the '341 Patent within this District and the State of Texas by making, using, selling, and/or offering for sale infringing products and/or services, directly and indirectly, without a license or permission from VideoShare. Defendants' infringing products and services include their products and services for receiving, converting, and sharing streaming video, including those distributed through YouTube.

### IV. VENUE

13. Venue is proper in this District as to Google under 28 U.S.C. §§ 1391(b) and 1400(b) because a substantial part of the events giving rise to the claim—namely the making, using, selling, and/or offering for sale of infringing products and/or services—occurred within this District, and Google has a physical place located in the District which is a regular and established place of business belonging to Google. *See In re Cray Inc.*, 871 F.3d 1355 (Fed. Cir. 2017).

- 14. Google is registered to do business in the State of Texas under tax identification no. 32022652351.
- 15. Google maintains a regional hub in this District. Specifically, Google's corporate office in Texas is located at 500 West 2<sup>nd</sup> Street, Austin, Texas 78701. Google actively conducts business from this regional hub in Austin, Texas—a facility which Google has spent more than \$20 million building out. This is a regular and established place of business belonging to Google.
- 16. Venue is proper in this District as to YouTube under 28 U.S.C. §§ 1391(b) and 1400(b) because a substantial part of the events giving rise to the claim—namely the making, using, selling, and/or offering for sale of infringing products and/or services—occurred within this District, and YouTube has a physical place located in the District which is a regular and established place of business, and it belongs to YouTube. *See id.*; *Seven Networks, LLC v. Google LLC*, 315 F. Supp. 3d 933 (E.D. Tex. 2018) (holding that Google's GGC servers hosted by an internet service provider constituted a *physical space* within the meaning of 28 U.S.C. § 1400(b)).
- 17. In addition, YouTube caches content at a Google Global Cache ("GGC") located at 3600 Presidential Boulevard, Austin, Texas 78719. The Defendants' GGC is a "physical place," a "regular and established place of business," and a "place of [Google]." *Seven Networks*, at 966-67. Likewise, GGC relates to YouTube the same as it relates to Google since both "YouTube and Google Play" are delivered to users through the GGC; thus, the GGC is a place that belongs to YouTube as well. *See id*.

### V. U.S. PATENT NO. 10,362,341

18. The '341 Patent, titled "Systems and methods for sharing video with advertisements over a network," was duly and legally issued by the U.S. Patent and Trademark Office on July 23, 2019 to Plaintiff. A true and correct copy of the '341 Patent is attached hereto as Exhibit A.

- 19. The '341 Patent was filed on January 23, 2019 and claims priority to U.S. Provisional Patent Application No. 60/147,029, filed on Aug. 3, 1999. More specifically, the '341 Patent is a continuation of U.S. Patent Application No. 15/618,304, filed on Jun. 9, 2017 and now U.S. Patent No. 10,225,584, which is a continuation of U.S. Patent Application No. 15/094,411, filed on Apr. 8, 2016, which is a continuation of U.S. Patent Application No. 14/597,491, filed on Jan. 15, 2015, which is in turn a continuation of U.S. Patent Application No. 13/909,876, filed on Jun. 4, 2013 and now U.S. Patent No. 8,966,522, which in turn is a continuation of U.S. Patent Application No. 09/631,583, filed on Aug. 3, 2000 and now U.S. Patent No. 8,464,302, which is a continuation-in-part of U.S. Patent Application No. 09/497,587, filed on Feb. 3, 2000, which claims priority to. U.S. Provisional Patent Application No. 60/147,029.
- 20. Plaintiff previously asserted U.S. Patents No. 8,464,302 and 8,438,608 against Defendants in Delaware District Court. *See VideoShare, LLC v. Google, Inc.*, 13-CV-990 (GMS), 2016 WL 4137524 (D. Del. Aug. 2, 2016), *aff'd*, 695 Fed. Appx. 577 (Fed. Cir. 2017).
- 21. Defendants were made aware of the '341 Patent as early as April 24, 2015 because it shares a common lineage with U.S. Patent No. 8,464,302, previously asserted in the aforementioned lawsuit. *See id*.
- 22. Each and every claim of the '341 Patent is valid and enforceable and enjoys a statutory presumption of validity under 35 U.S.C. § 282.
- 23. Plaintiff is the owner of the '341 Patent with full rights to pursue recovery of royalties or damages for infringement of such patent, including full rights to recover past and future damages.
- 24. Defendants are not licensed to the '341 Patent, either expressly or implicitly, nor do they enjoy or benefit from any rights in or to the '341 Patent whatsoever.

## A. Background of the '341 Patent.

- 25. The inventors of the '341 Patent are Gad Liwerant, Christopher Dodge, and Guillaume Boissiere.
- 26. Gad Liwerant studied at Harvard University, graduating with distinction in 1998. During his studies, Liwerant took an interest in state-of-the-art graphics processing and video systems; and by August 1998 Liwerant had created AllCam, a service which composited various available camera feeds so that they could be viewed remotely by users in real-time. This project continued to develop, eventually being renamed VideoShare in November 1999. Alongside MIT Media Lab members Christopher Dodge and Guillaume Boissiere, Liwerant began developing video-related software for VideoShare. The purpose of this venture was to provide the necessary technological solutions to distribute video content to users anywhere in the world.
- 27. Streaming video was desirable for a variety of reasons during the time VideoShare was active, including, for example, hardware limitations such as smaller hard drives, which were quickly saturated, as well as the inability to send large files across the internet. Streaming provided a solution to both issues because it avoided long-term storage of the full video on a user's machine and provided a way to send much larger files over the internet by sending the file in many discrete parts instead of a single mass of data. These same motivations and solutions are still visible in the form of the many cloud-based internet platforms on the market today. However, despite the clear advantages of video streaming, certain technical hurdles remained.
- 28. The '341 Patent addresses the problem presented by streaming video over a network to arbitrarily distant viewers. Efforts to accomplish and improve the process of streaming video have been underway for many years; however around 2000, at the outset of these undertakings, such ideas were in their infancy. In particular, there were two prominent problems with streaming video

to a multitude of users: (1) uncertainty as to the destination platform and (2) limited network bandwidth.

- 29. As an example of the uncertain destination platform problem, one user may request to view a video on their smart television, while another may request to view it on their phone, and still another may wish to view video content on their PC or laptop. In such circumstances, the optimal video file to send is not always available, as the mobile user may be unable to resolve the same resolution as the laptop user, and the television's supported encoding may not match that of the mobile or computer users.
- 30. As an example of the bandwidth problem, two users may have internet connections with vastly different speeds, such as dial-up versus a modern fiber connection. The dial-up user is unlikely to be able to download a high definition video with sufficient speed to smoothly play the video on their device, forcing repeated pausing because a playback buffer must be built up before resuming the video. The fiber user, on the other hand, can view the video in high definition with no problems. Having only one video file in only one resolution makes it impossible to tailor the transmitted video to the needs and capabilities of its users.
- 31. In an effort to remedy these problems, Liwerant and other experts in the field of video streaming developed processes for automatically converting video content to various formats and storing the resulting set of files with a common identifier, a process sometimes referred to as "transcoding." Transcoding allows a computer system to receive a request for a video in a less particularized form, identifying only the video and allowing the computer system to make autonomous determinations as to the optimal playback format and/or resolution for the target device or platform.

32. Liwerant noted the critical importance of conversion and file format management to successful streaming applications as early as 1999, when the provisional application to which the '341 patent claims priority was filed. In its efforts to establish itself as a household streaming platform, VideoShare continued to advance such technology and develop software in order to implement these improvements to its own computer systems.

# B. The '341 Patent Claims Are Directed to Improved Functionality of Streaming Server Systems Enabling Them To More Effectively Service a Large Number of Clients.

- 33. Prior to the '341 Patent, no one had ever implemented an automatic transcoding system in order to enable both automatic conversion and streaming file selection in the manner claimed in the '341 Patent.
  - 34. Claim 1 of the '341 Patent requires:

A method for sharing video over a structured hierarchical network comprising:

a first server system receiving a first video file in a first format from a first client via the structured hierarchical network;

the first server system creating a second video file in a second format by converting at least

a portion of the first video file from the first format to the second format, independent from receiving a command from the first client to perform such conversion;

the first server system storing the first video file and the second video file;

the first server system generating an identifier for video content corresponding to the first video file and the second video file;

the first server system receiving a request to stream the identified video content to a second server system or a second client via the structured hierarchical network;

the first server system sending the stored first video file or the stored second video file corresponding to the identified video content to the second server system or the second client via the structured hierarchical network depending on a compatibility of the second server system or a compatibility of the second client with the first format or the second format; and

the first server system sending an advertisement for display with the identified video content sent in the stored first video file or the stored second video file.

- 35. The '341 Patent claims a technique for sharing video over a network in which the initially received video file is converted into another format, and the appropriate video file is chosen on the basis of compatibility with the server or client to which the video is to be sent.
- 36. The claims of the '341 patent are directed toward a method that improves the functionality of the computers on which they are implemented by making those computers capable of more efficiently transferring video content to client devices. Without the functionality described in the '341 Patent, more bandwidth than is necessary for receipt of the video at the destination device may be used, as in the case where the device is incapable of displaying the video in as high of resolution as the file delivered contains. Alternatively, playback may be halting and error-prone because the video encoding used in the file as received cannot be read as quickly as is required for a smooth viewing experience.
- 37. When executed at an enterprise level, the claimed method of the '341 Patent requires specialized hardware infrastructure and is not possible on a general purpose computer. Video conversion is a complex and resource-intensive task even when only one file is being converted. When the number of videos becomes large, as is the case when processing continuous uploads from many users around the world, dedicated distributed computing systems are necessary to manage the workload. Such systems often consist of multiple servers networked together to process individual

frames in parallel and then reassemble the resulting parts of the full transcoded file into the finalized streaming video file.

38. Taken as a whole, the '341 Patent is directed to specific methods of improving the functionality of the computer systems used and not toward any abstract idea. The inventive concept of converting video and selecting the most appropriate file for transmission upon request at the heart of the '341 Patent enables more efficient use of the specialized hardware involved in worldwide streaming.

### VI. DECLARATORY JUDGMENT OF VALIDITY OF THE '341 PATENT

- 39. The '341 Patent is valid as it fully complies with the conditions and requirements of patentability set forth in Title 35 of the United States Code, particularly 35 U.S.C. § 101.
- 40. There is an actual controversy, within the meaning of 28 U.S.C. §§ 2201 and 2202, between Plaintiff and Defendants as to whether there exists any valid asserted claim of the '341 Patent.
- 41. Plaintiff requests a judicial determination and declaration of the respective rights and duties of the parties on the dispute recited above. Such a determination and declaration are necessary and appropriate at this time so the parties may ascertain their respective rights and duties in this regard.

#### VII. DIRECT INFRINGEMENT OF THE '341 PATENT

42. Defendants' products and/or services, including those marketed as YouTube, allow users to access video over a structured hierarchical network such that the product and/or service transmits an optimal, pre-converted video file to a user upon a user accessing an associated identification tag based on compatibility with that user's device in the same manner claimed by the '341 Patent. The respective product and/or service accomplishes this task by using a server which

receives a first video file having some first format by way of the hierarchical network. Then, it automatically converts at least a part of the received first video into a second format or formats, creating a second video file or files from the result. The product and/or service then stores the first and second streaming video file formats on or using the server. Next, it creates an identification tag associated with both the first video file as well as the converted video file or files created from the first. When a request including the identification tag and/or information therein is received by Defendant's servers, either the first video file or one of the second video files created from the first is and then transmitted to a second server or client on the network. The determination as to which video file to send depends on the compatibility of the second server or client with the formats of the first and second video files.

43. Defendants have directly infringed and continue to directly infringe at least one claim of the '341 Patent under 35 U.S.C. §§ 271(a) and 271(g) by making, using, selling, and/or offering for sale their products and/or services for receiving, converting, and sharing streaming video made by practicing and by performing processes that practice the '341 Patent as described above. By way of example, such infringing products and/or services include those marketed as YouTube made, used, sold, or offered for sale by Defendants.

## VIII. INDIRECT INFRINGEMENT OF THE '341 PATENT

44. Defendants have actively contributed to and continue to actively contribute to infringement of at least one claim of the '341 Patent under 35 U.S.C. § 271(c) by intentionally selling, offering to sell, or importing within the United States components adapted for use in products and/or services practicing the '341 Patent. The Google Global Cache ("GGC") servers, functioning as edge-nodes in Defendants' content delivery network, host Defendants' products and services and thereby practice at least one claim of the '341 Patent. These GGC servers are offered to

varying Internet Service Providers ("ISPs") and installed, operated, and maintained at locations owned and managed by these ISPs around the United States. GGC servers are designed to allow for local storage of content and handling of incoming traffic, enabling Defendants to efficiently exchange network traffic between users and Defendants' datacenters and servers hosting the accused products and/or services. The GGC servers form a crucial component of Defendants' structured hierarchical network for delivering content and therefore facilitate Defendants receiving video files, receiving requests to stream identified video content, and sending stored video content to a second server or client all in an infringing manner which practices the '341 Patent.

- 45. Defendants have additionally actively contributed to and continue to actively contribute to infringement of at least one claim of the '341 Patent under 35 U.S.C. § 271(c) by intentionally selling, offering to sell, or importing within the United States components adapted for use in products and/or services practicing the '341 Patent by contracting with one or more third parties to share content delivery network services in a way which contributes to the practice of at least one claim of the '341 Patent. In addition to the GGC servers, Defendants make use of third party content delivery infrastructure in order to supplement the edge nodes of its content delivery network. Like the GGC servers, third party edge nodes are a component of Defendants' structured hierarchical network and are critical to effective delivery of stored video content to servers or clients requesting the content from Defendants' data centers in a manner which practices the '341 Patent.
- 46. Defendants know that the use of edge servers such as those provided by third party partners to supplement the GGC, are critical to efficiently transmitting data in response to received requests as is necessary when streaming files like video in a way which practices the '341 Patent.

<sup>&</sup>lt;sup>1</sup> See https://support.google.com/interconnect/answer/9058809?hl=en&ref\_topic=7659203 (last accessed Nov. 15, 2019), https://peering.google.com/#/infrastructure (last accessed Nov. 15, 2019).

<sup>&</sup>lt;sup>2</sup> See https://www.akamai.com/us/en/about/news/press/2015-press/akamai-intelligent-platform-interconnects-with-google-cloud-platform.jsp (last accessed Nov. 15, 2019).

Defendants' content delivery network, including the GGC and third party servers within it, are specially adapted to this purpose and are not staple articles or commodities of commerce suitable for substantial noninfringing use.

#### IX. WILLFUL PATENT INFRINGEMENT

- 47. Defendants have had knowledge of the '341 Patent since at least April 24, 2015.
- 48. Defendants have continued making, using, selling, and/or offering for sale infringing products and/or services including products and/or services for receiving, converting, and sharing streaming video, including those distributed through YouTube, despite an objectively high likelihood that their actions infringe at least one claim of the '341 Patent, thus making Defendants liable for willful infringement damages pursuant to 35 U.S.C. § 284.
- 49. Defendants' direct, indirect, and willful infringement of the '341 Patent has caused, and will continue to cause, substantial damage to Plaintiff. Therefore, Plaintiff is entitled to an award of damages adequate to compensate for Defendants' infringement, but not less than reasonable royalty, together with pre-and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

### X. JURY DEMAND

50. Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiff hereby demands a trial by jury for all causes of action.

### XI. PRAYER FOR RELIEF

- 51. Plaintiff requests the following relief:
- A. Enter a declaration and judgment that all claims of the '341 Patent are valid pursuant to Title 35 of the United States Code, particularly 35 U.S.C. § 101.

- B. A judgment that Defendants have directly and indirectly infringed either literally and/or under the doctrine of equivalents and continue to directly and indirectly infringe the '341 Patent;
- C. A judgment and order requiring Defendants to pay Plaintiff damages, including treble damages for willful infringement, as provided by 35 U.S.C. § 284, and supplemental damages for any continuing post-verdict infringement through entry of the final judgment with an accounting as needed;
- D. A judgment that this is an exceptional case within the meaning of 35 U.S.C. § 285 and that Plaintiff is therefore entitled to reasonable attorneys' fees;
- E. A judgment and order requiring Defendants to pay Plaintiff pre-judgment and post-judgment interest on the damages awarded;
  - F. A judgment and order awarding a compulsory ongoing royalty;
  - G. A judgment and order awarding Plaintiff costs associated with bringing this action;
- H. A judgment granting a preliminary and permanent injunction that restrains and enjoins Defendants, its officers, directors, employees, agents, servants, parents, subsidiaries, successors, assigns, and all those in privity, concert or participation with them from directly or indirectly infringing the '341 Patent; and
  - I. Such other and further relief as the Court deems just and equitable.

Dated: November 16, 2019 Respectfully submitted,

By: /s/ Charles L. Ainsworth

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